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COMMONWEALTH OF AUSTRALIA.

# PATENT SPECIFICATION

17 JAN '53

138,873

Application Date: 29th April, 1947.

11,743/47.

Complete Specification Published . . . . . 29th April, 1948.

Complete Specification Accepted . . . . . 3rd October, 1950.

Class 06.6.

Drawing attached.

## COMPLETE SPECIFICATION.

"Improvements in electric torches."

I, LLOYD GEORGE WHITE, of 10 James Street, West Ryde, in the State of New South Wales, Commonwealth of Australia, Electrical Fitter, hereby declare this invention, and the manner in which it is to be performed, to be fully described and ascertained in and by the following Statement:—

This invention relates to electric torches, particularly those of the self contained type for use in the hand or on vehicles, and for other suitable purposes.

The present invention has been devised to provide means of a simple nature whereby the light beam can be accurately and instantaneously focussed as required by the use of one hand. The case and associated parts are also of inexpensive but efficient form, and wherein the number of such parts is reduced.

A further object is to provide a simple switch which is automatically actuated by the operation of focussing the light beam. Such switch is so constructed as to be free from deterioration due to corrosive action of the batteries.

According to this invention the electric torch consists of two casing sections. One

such section forming a main body section houses the batteries and carries an electric light bulb mounted at one end thereof, while the other sections form a head section and houses a lens and reflector, and is slidably mounted on the light end of said first section so as to move parallel to the axis of such first section for focussing purposes, such movement being restrained within reasonable limits.

A press button lighting switch is mounted in the side of the main body section to protrude at its operating end, and is adapted for engaging contact with the head section as the latter is slid forward in the focussing operation. A spring loaded pin is arranged at the other side of the main body section opposite the press button switch and takes in a slot in the side of such head section to control the extent of sliding focussing movement. Depressure of this pin releases it from the slot and allows the head section to be removed, as for replacement of the light bulb in the end of the main body section.

In order to describe the invention more fully, reference will now be made to the

Illustrated Abstract of  
Unaccepted complete  
Spec. open to Public  
Inspection recd. 11/4/48  
Fig. No. 3 Claim No. 1

accompanying drawings, wherein:—

Figure 1 is a sectional elevation of a preferred construction of the electric torch, with the head section retracted, while

Figure 2 is a sectional plan taken through the press button switch and the opposite spring pin, and

Figure 3 is a similar view to Figure 1 with such head section slid forwardly in focussing and effecting automatic switching-on of the torch.

The main body section 4 of cylindrical form and of metal or other suitable material is adapted to receive dry batteries (indicated at 5) therein, and has a removable base cap 6 with contact spring 7A fitted in the interior. At the other end a cross wall 7 of insulating material, preferably plastic, is secured in place, and carries a lamp holder 8 centrally thereof. A light bulb 9 is screwed into the lamp holder 8 more or less as usual.

At one side of the light end of the main body section 4 the switch is arranged and consists of a spring blade 10 secured at one end by a rivet 11 to the interior of the said body 4, and at its other end is turned out to form a contact 12 which abuts the base of the lamp holder 8 to make the circuit when the press button 13 secured to said blade 10 is pressed in. This press button 13 protrudes normally through an orifice 14 in the body side, and is curved at its top surface.

At the opposite side of the main body section 4 the spring pin 15 is arranged, and is carried on a spring blade 16 secured by a rivet 17 to the interior of the wall of said main body 4. This pin 15 also protrudes through an orifice 18.

The head section 19 is formed at its lower part to neatly slide over the light end of the main body section 4 with the spring pin 15 taking in an elongated slot 20, and so controlling the extent of slidable focussing movement. This elongated slot 20 is formed parallel to the axis of the sections 4 and 19. A hole 21 is provided at the opposite side through which the press button 13 engages with

the head section 19 is in the "off" position.

The head section 19 also has a finger abutment 22 at one side and houses a reflector 23, and there is an end cover panel 24 preferably of transparent plastic.

In use, to focus the torch, the head section 19 is slid forwardly to desired extent, and at the same time passes over the press button 13, depressing same and switching on the light. Retiring of the head section 19 releases the press button 13 and allows it to spring out through the orifice 21 in said head section, thereby breaking the circuit.

Depression of the spring pin 15 in its slot 20 allows the head section 19 to be removed.

HAVING NOW fully described and ascertained my said invention, and the manner in which it is to be performed, I declare that what I claim is:

1. An electric torch consisting of a main body section adapted to receive the battery or batteries therein and having a light bulb at one end; a head section carrying a reflector and a transparent end cover panel or facing, and sleeved over the light bulb end of said main body section so as to be slidable thereon parallel to the axis thereof for focussing purposes; a switch embodied in said main body section and formed for actuating to make the circuit of the torch by slidable focussing movement of said head section on said main body section; and means to control the extent of slidable movement of said head section.

2. An electric torch according to Claim 1, wherein the switch consists of a spring blade secured at one end as by a rivet to the interior of the main body section and having a shaped portion at the other and free end to form a contact to abut the lamp holder or other portion of the torch to make the circuit, said spring blade having a press button affixed thereto to normally protrude through an orifice in the side of said main body portion and taking in a second orifice in the head section when the latter is retracted; the arrangement being

such that slidable focussing movement of said head section effects pressing in of said press button to switch on the torch light.

3. An electric torch according to Claim 1, wherein the means to control the extent of sliding movement of the head section consist of a pin affixed to the free end of a spring blade fixed at one end to the interior of the main body section on the side opposite the switch and protruding the said pin through an orifice in said main body section to take in an elongated hole formed in the said head section parallel with the axis of the said head and main body sections.

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4. An electric torch according to Claim 2, wherein a finger abutment is provided on the head section adjacent the press button.

5. An electric torch, constructed, combined and operating substantially as herein described and explained, and as illustrated in the accompanying drawings.

DATED this 26th day of FEBRUARY, A.D. 1948.

LLOYD GEORGE WHITE,

By His Patent Attorney,

CHAS. BURNES,

Witness: Joy E. Castledine.

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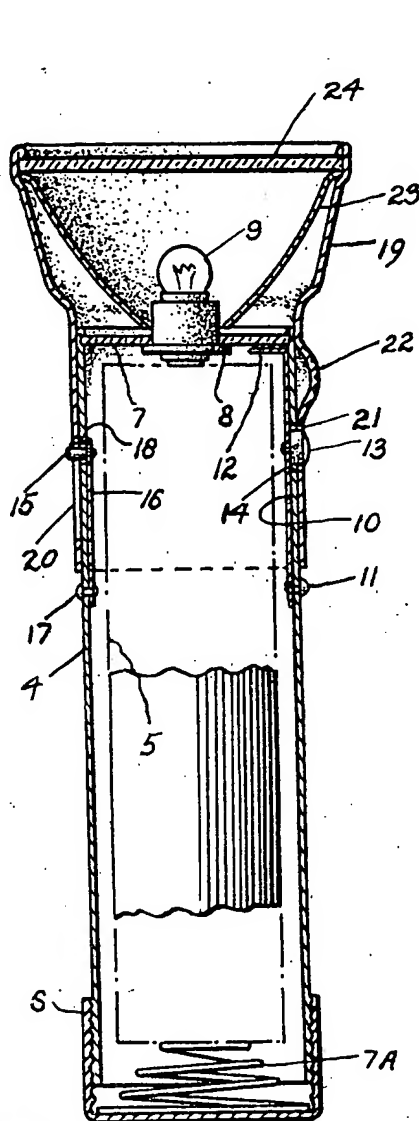


Fig. 1.

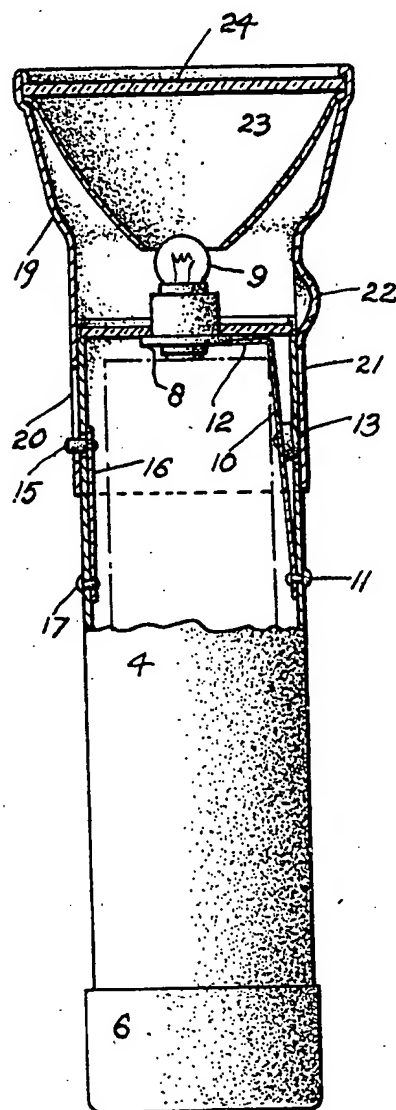


Fig. 3.

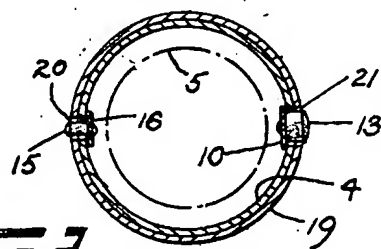


Fig. 2.